JETMET SPRING 2002 PRODUCTION – Rates and Efficiency

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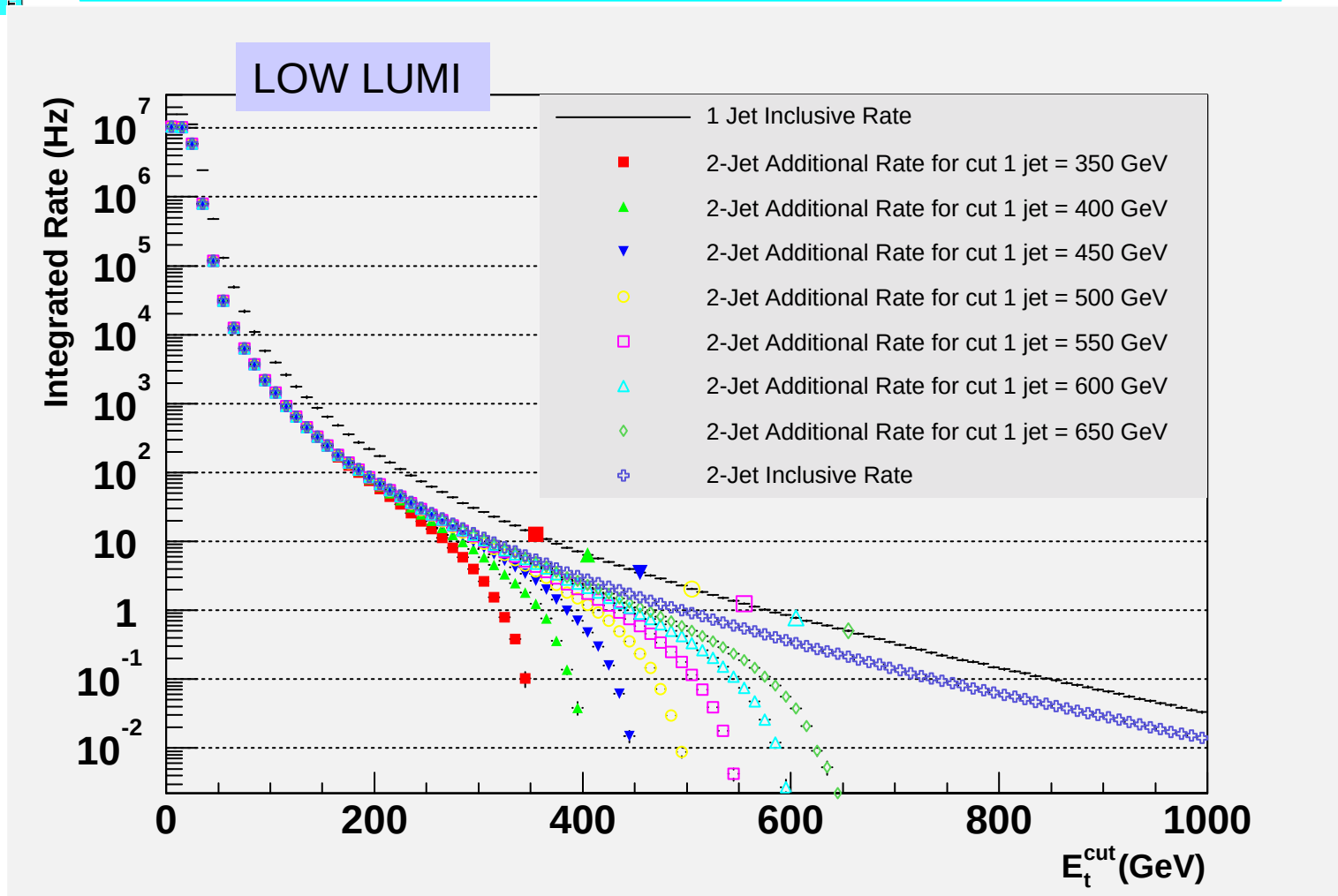
- Cumulative HLT trigger rates for 1,2 and 3 jet Trigger at low and high luminosity
- Comparison with old production (low luminosity)
- Trigger efficiency on Z'(700)->2 jet (low and high luminosity)
- Rate vs Efficiency
- Conclusions

The analysis

- Spring 2002 Production (what available until two days ago)
  - HLT sample + Z'(700)->2 j
  - Pile-up and rates for $L=2x10^{33}cm^{-2}s^{-1}$ (LOW L) and $L=10^{34}cm^{-2}s^{-1}$ (HIGH L)
  - Jet cone size =0.5
  - Corrected jet energy scale with new parametrization functions
  - "Branson Weight" method for rates (it has been recalculated)
  - Salavat's HF filter with suggested parameters
  - Nominal thresholds

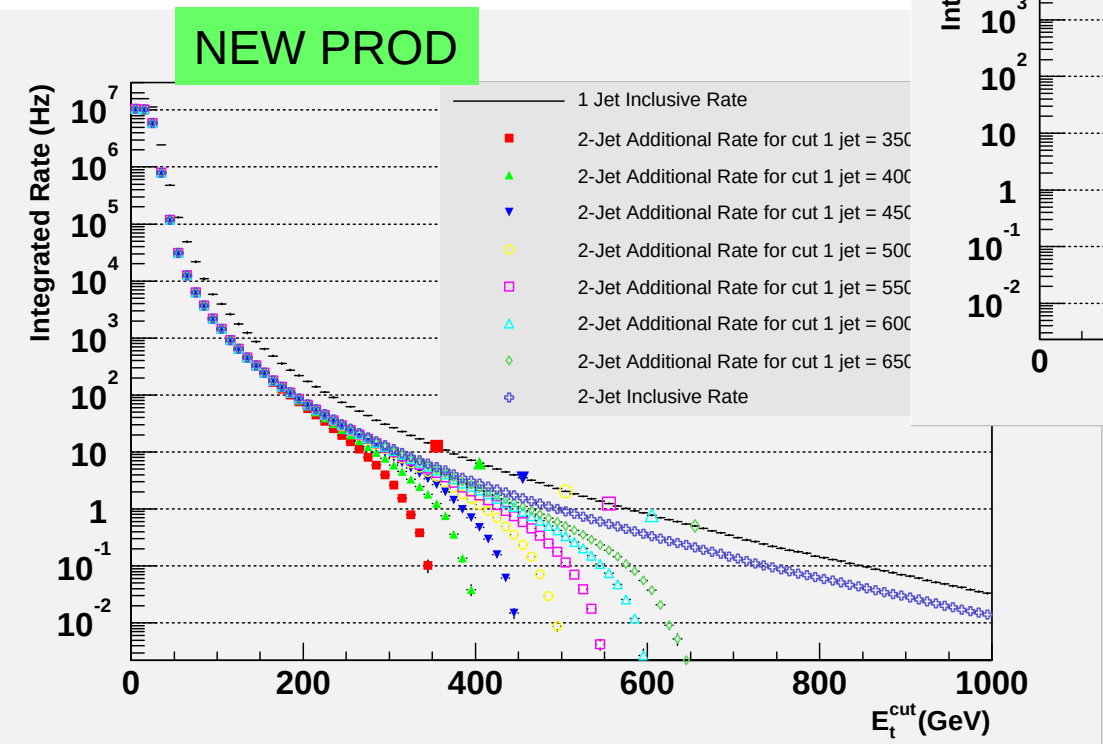
Single and (Additional) Di-jet Rates



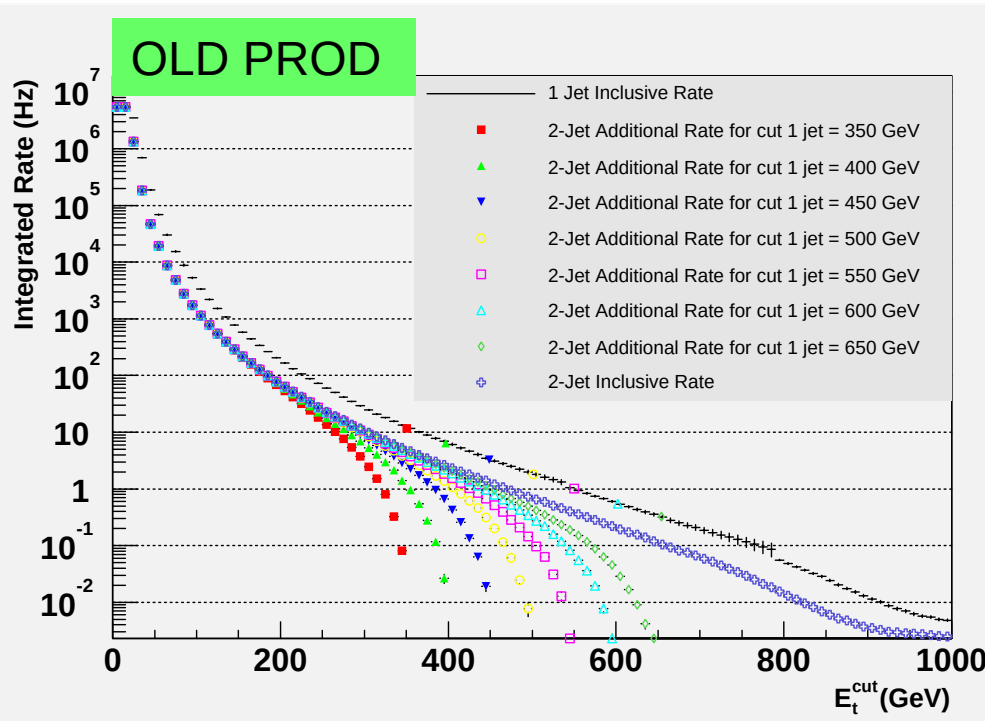
Single and (Additional) Di-jet Rates

LOW LUMI

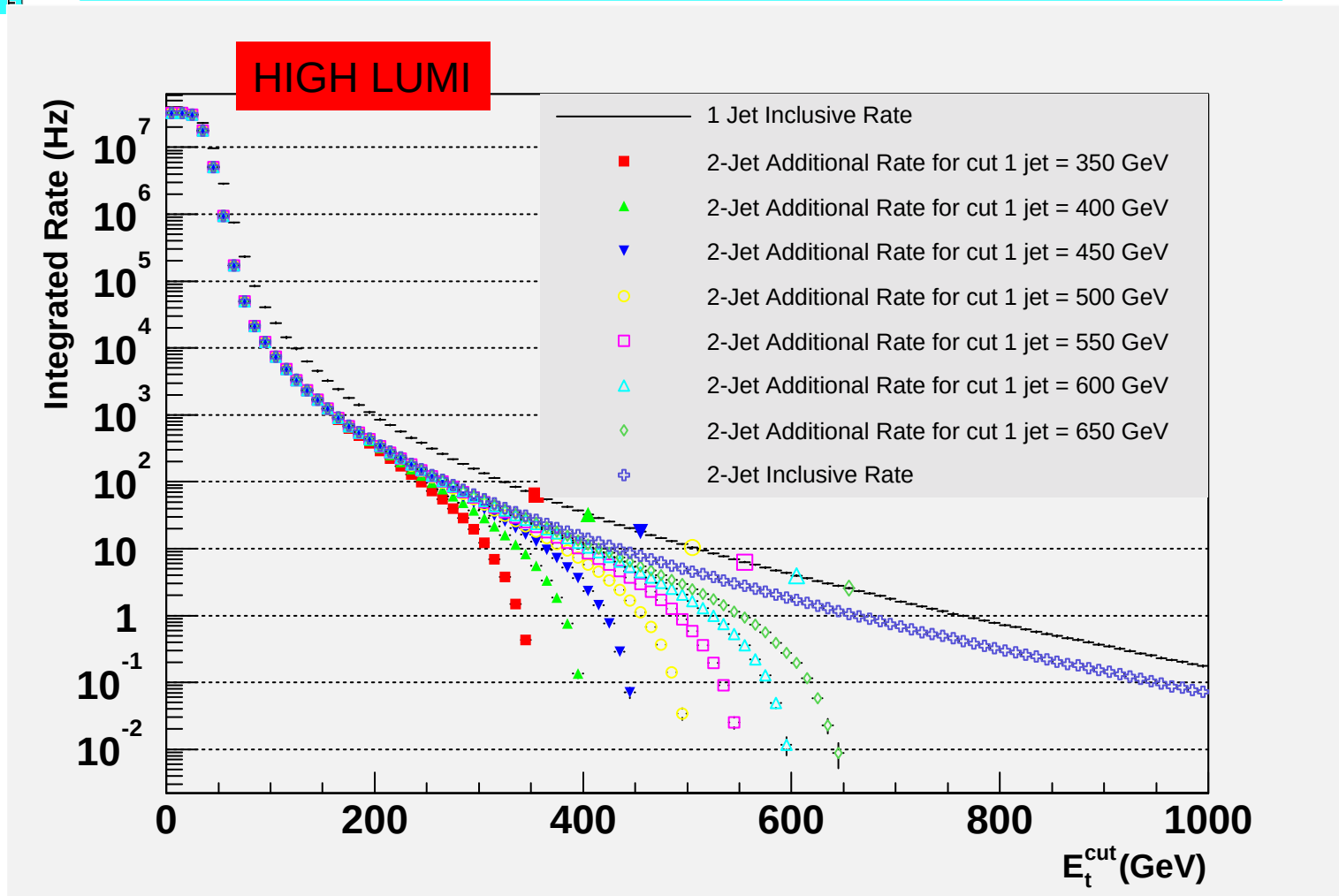
NEW PROD



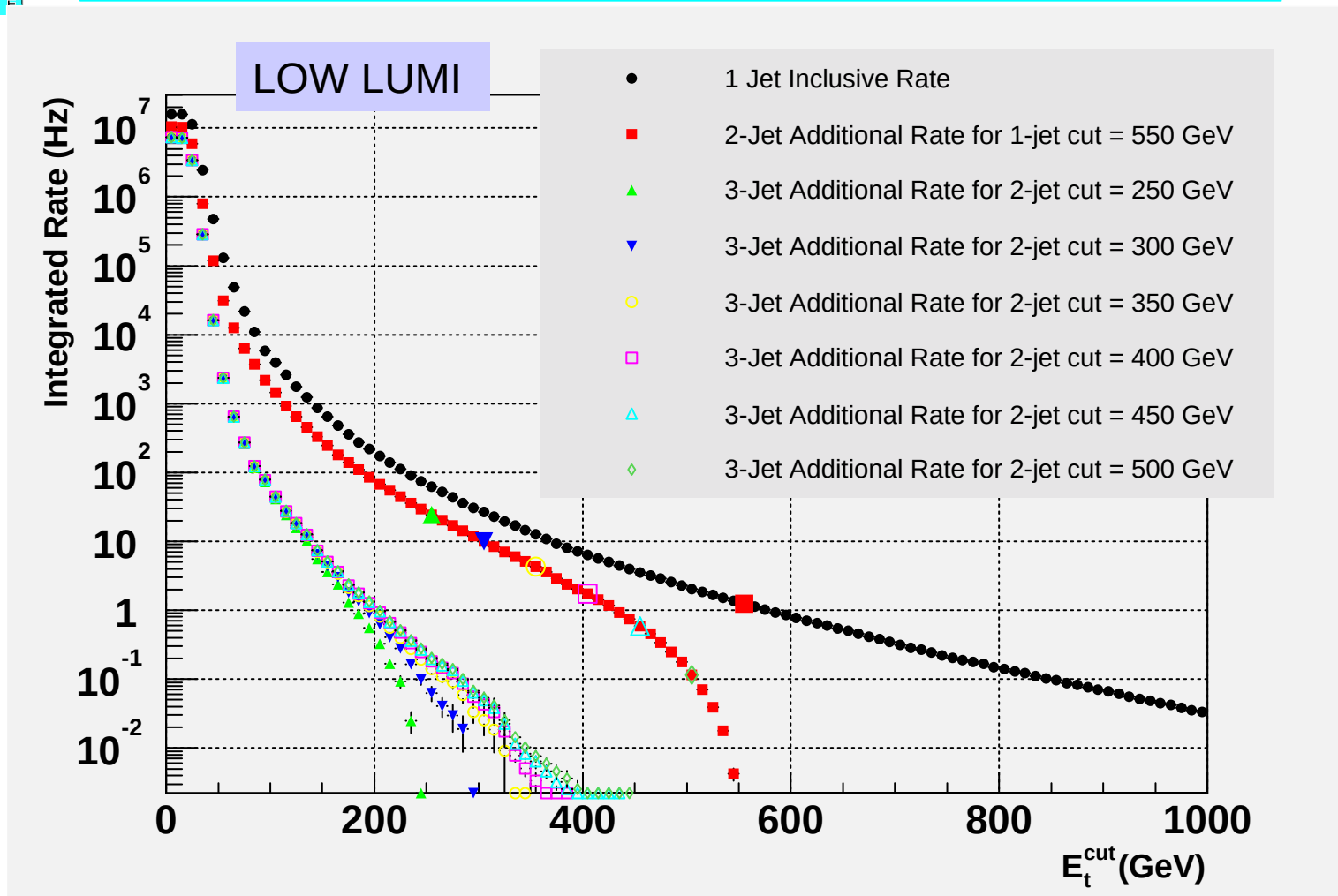
OLD PROD



Single and (Additional) Di-jet Rates



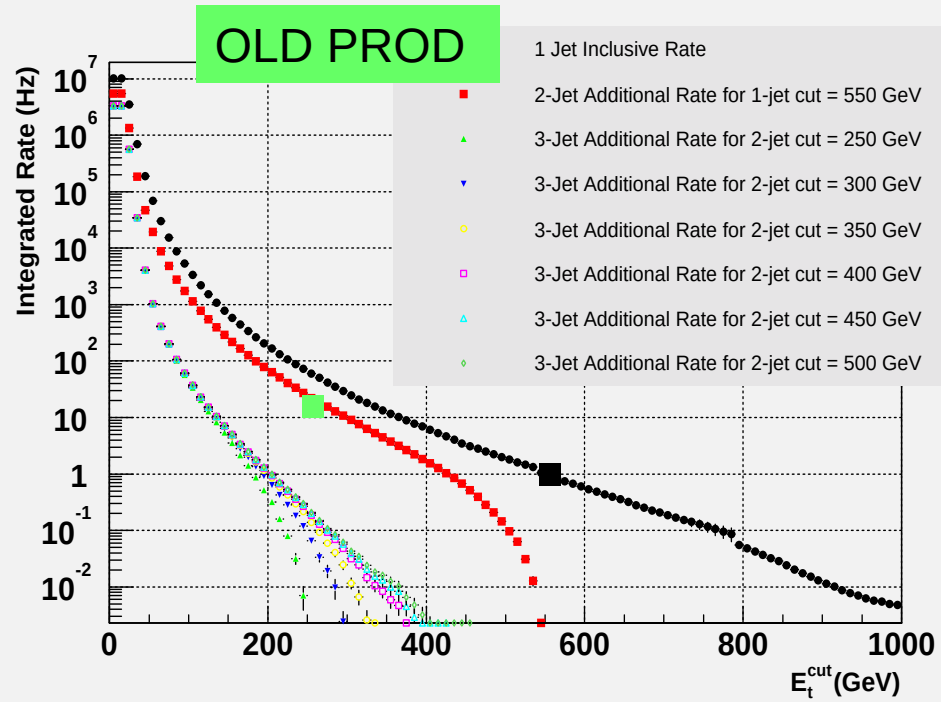
3-jet Trigger Additional Rate (1-jet cut=550 GeV)



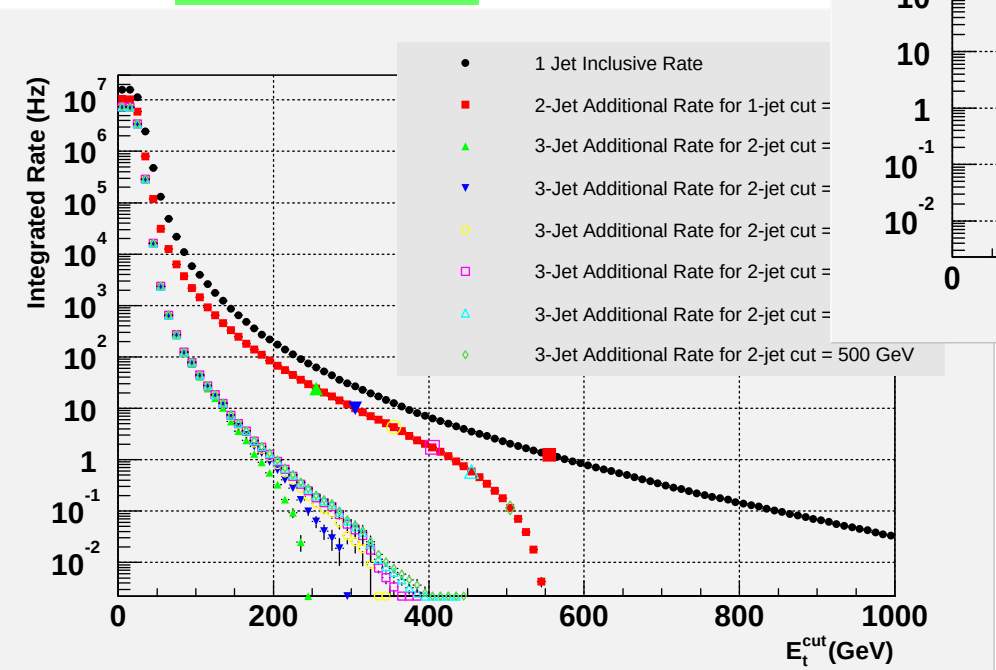
3-jet Trigger Additional Rate (1-jet cut=550 GeV)

LOW LUMI

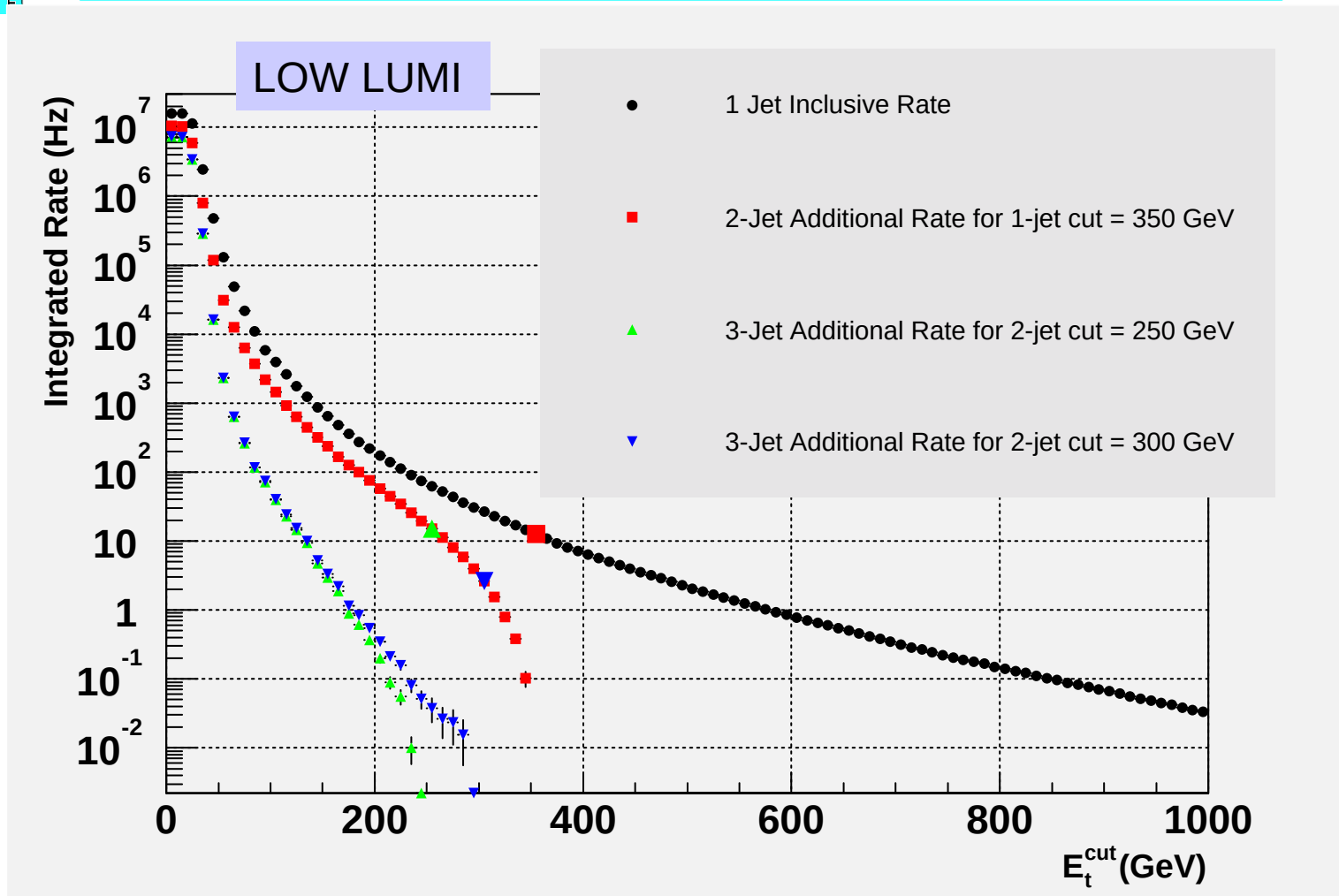
OLD PROD



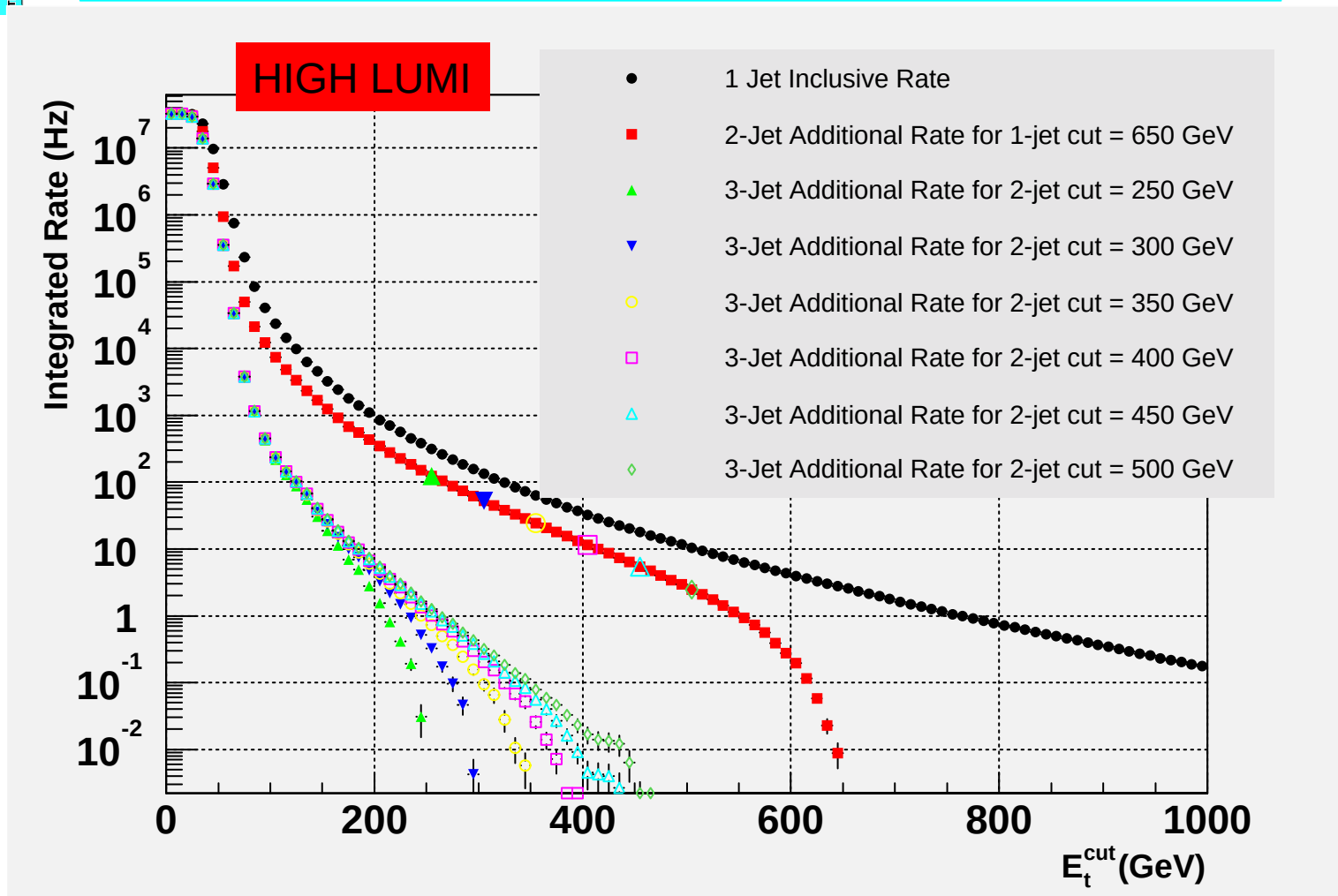
NEW PROD



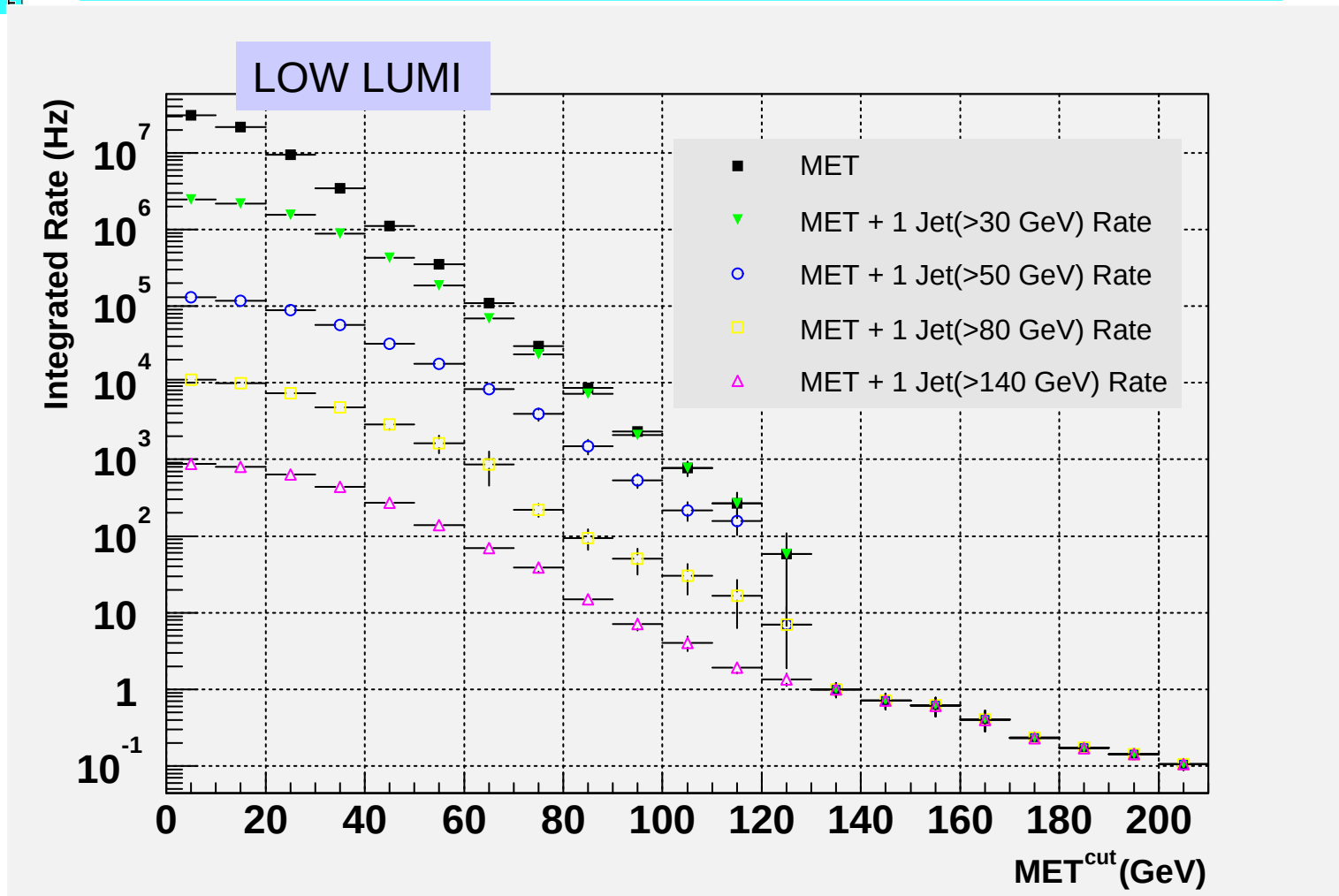
3-jet Trigger Additional Rate (1-jet cut=350 GeV)



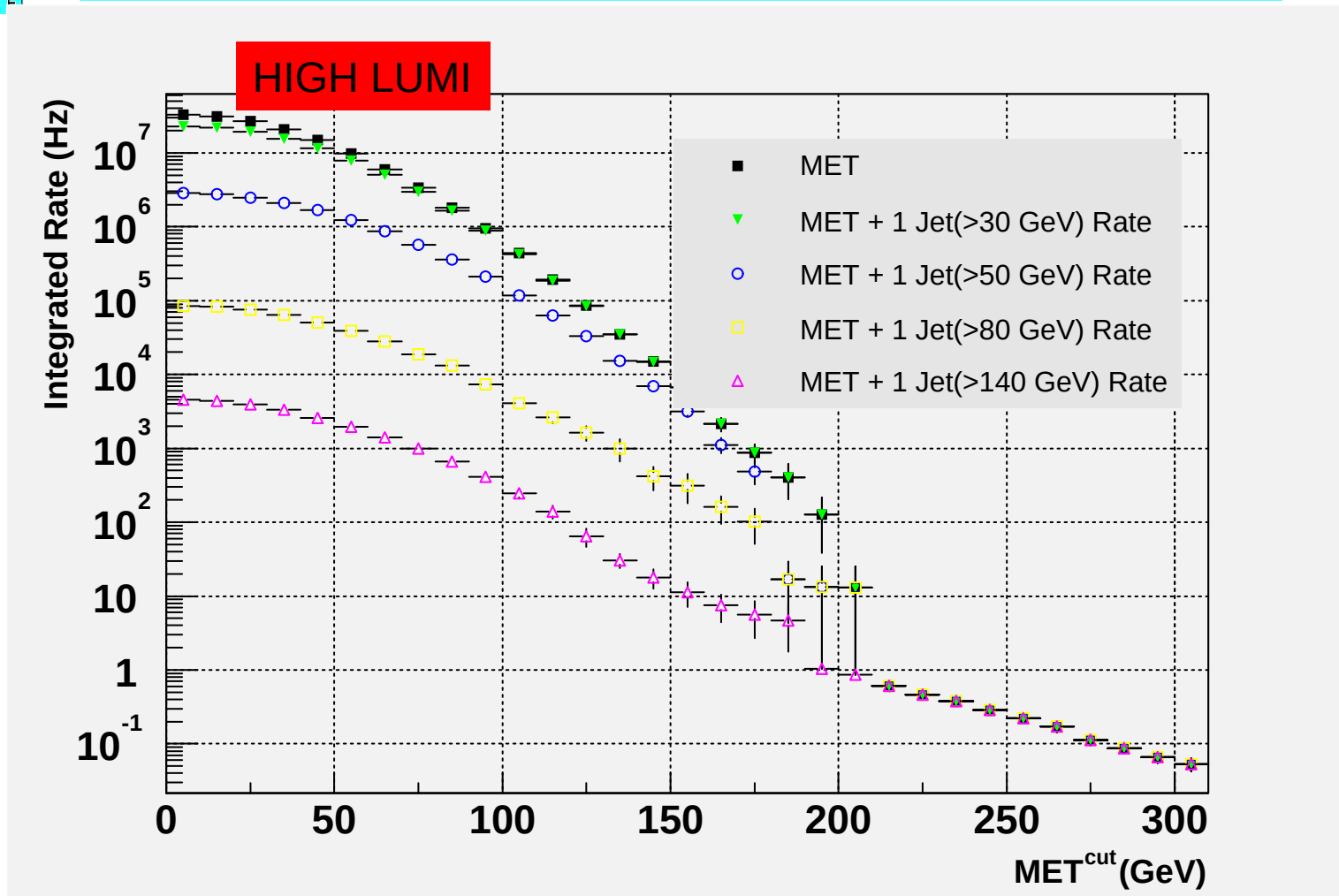
3-jet Trigger Additional Rate (1-jet cut=650 GeV)



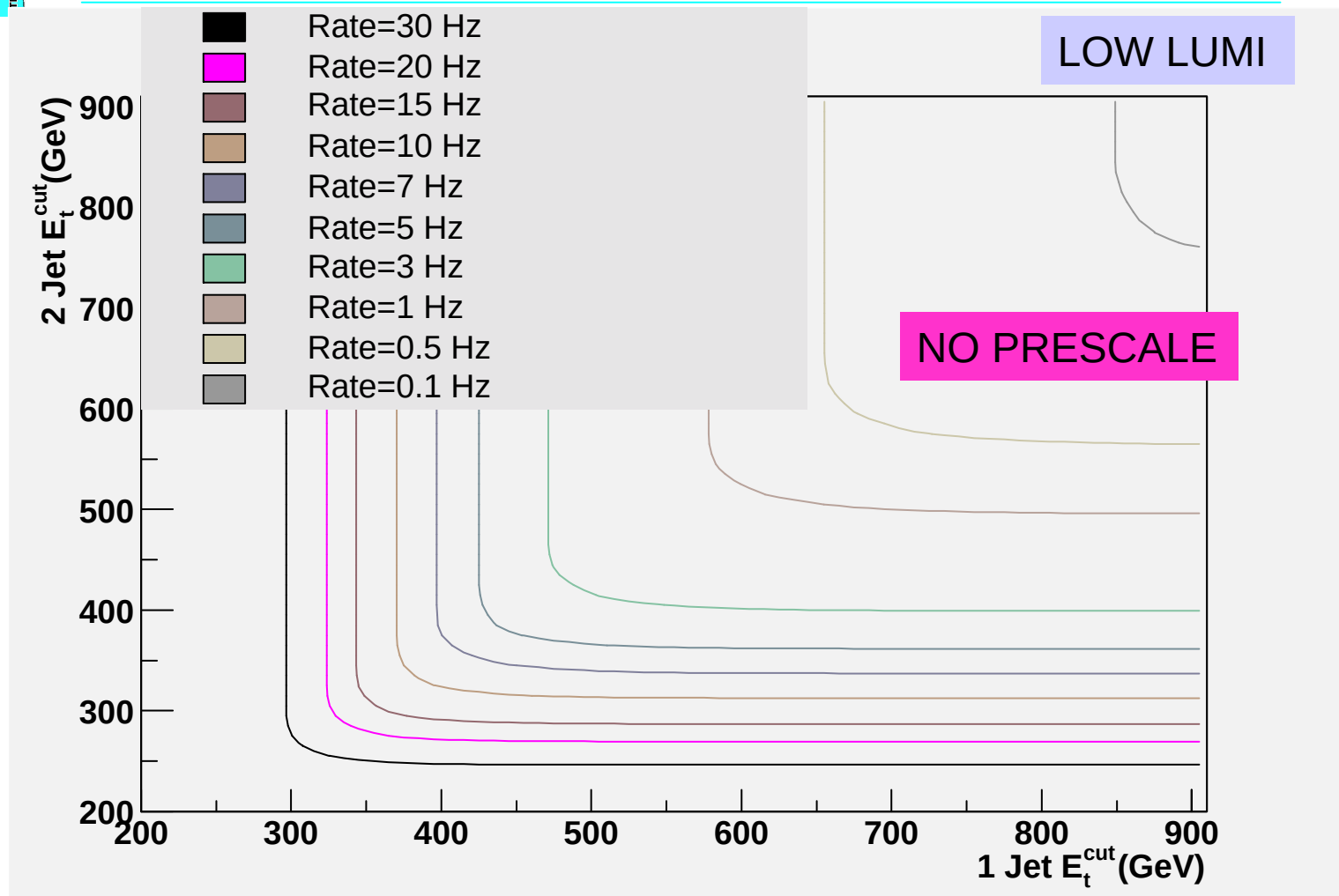
MET(3)+1 Jet Trigger Rate



MET(3)+1 Jet Trigger Rate



IsoRate (Z'700->2j)for the 1 and 2-jet trigger



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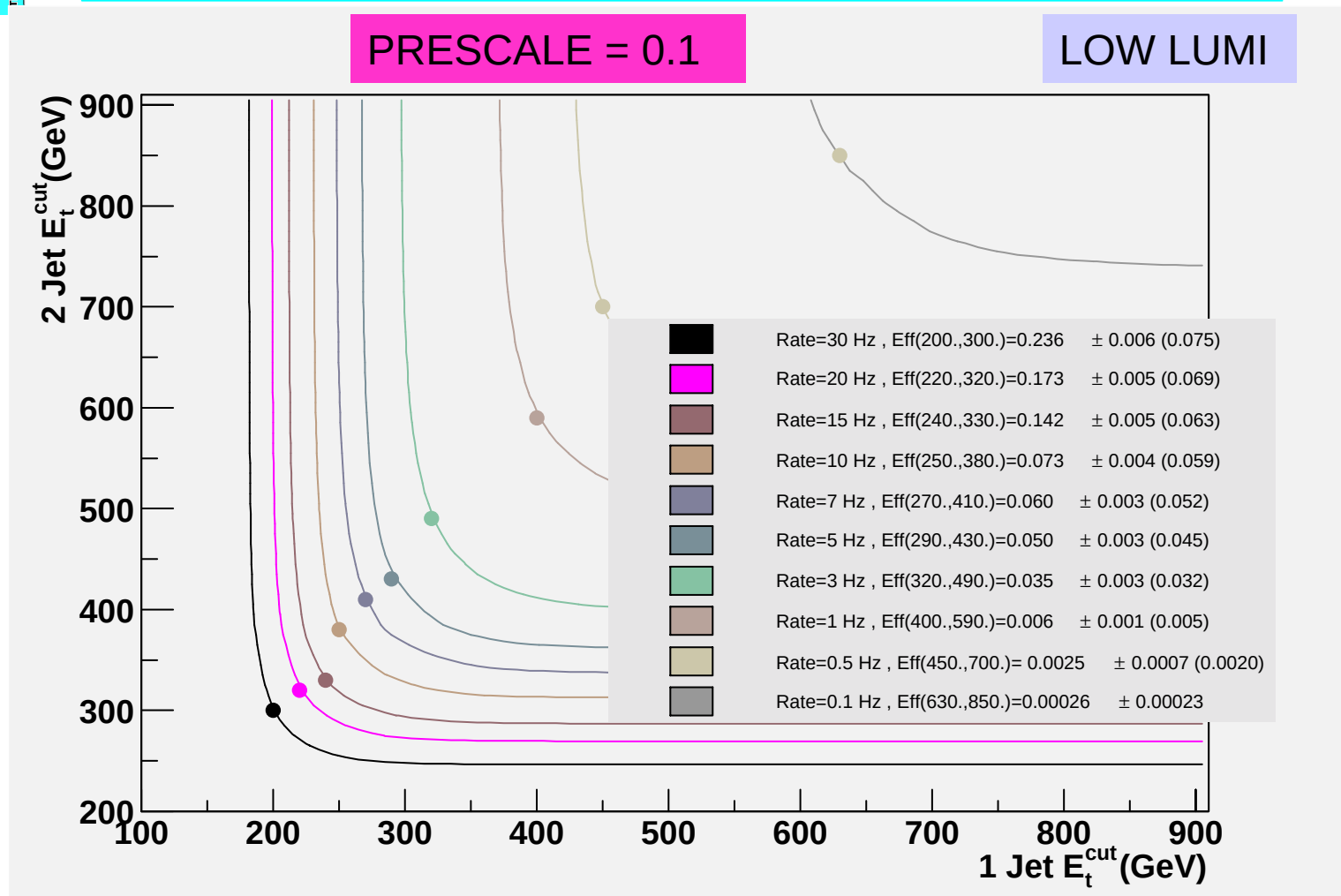
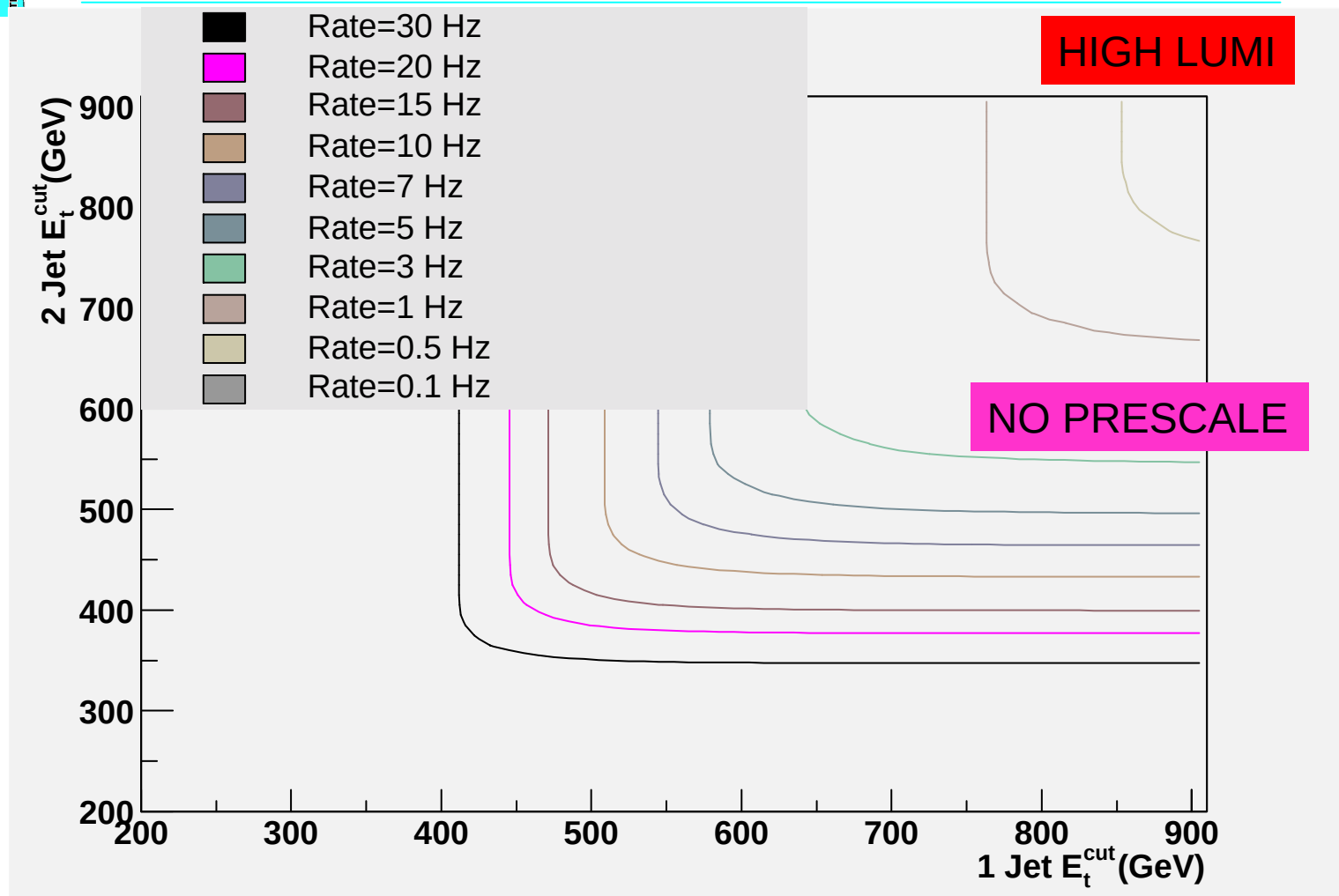
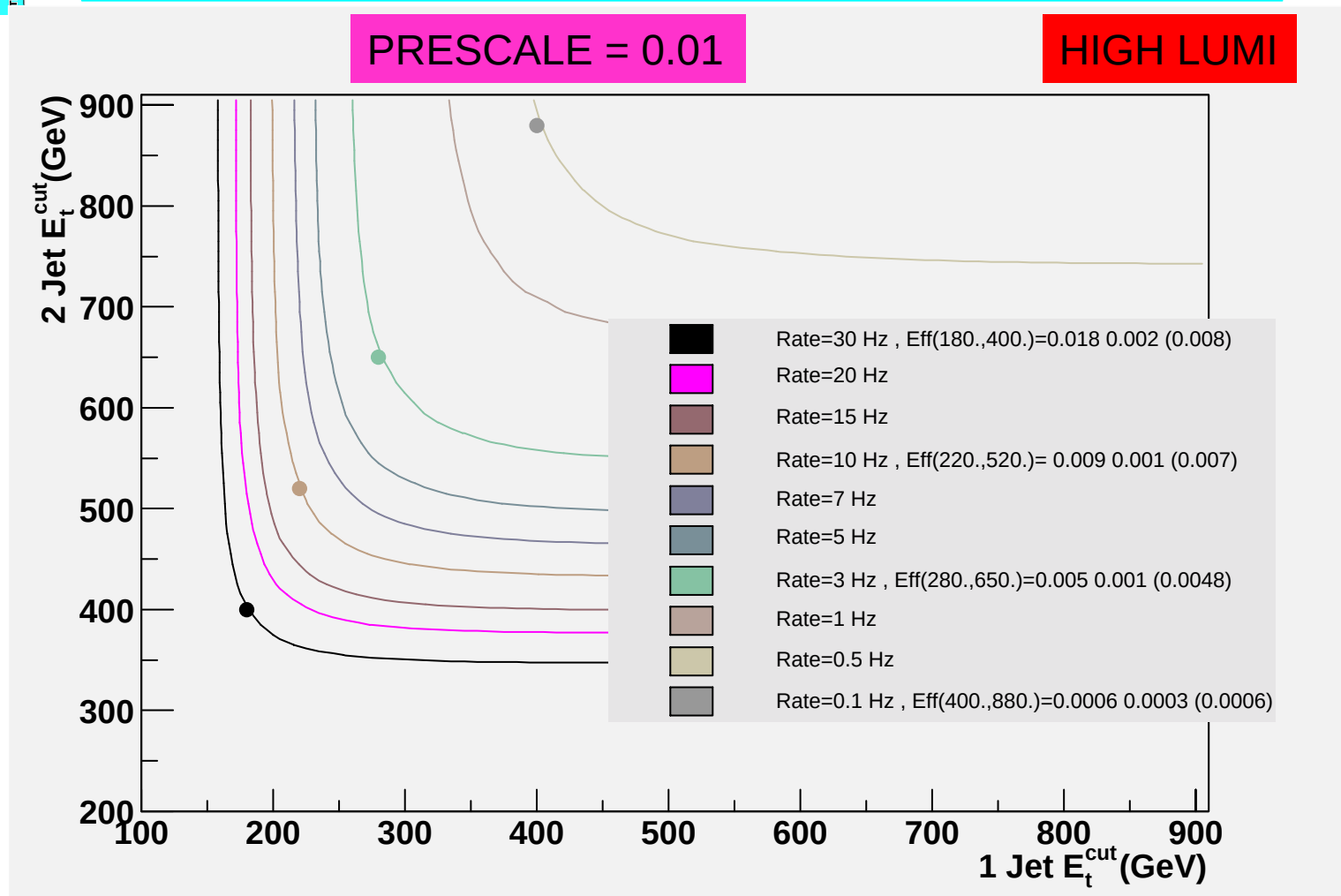


IsoRate (Z'700->2j)for the 1 and 2-jet trigger



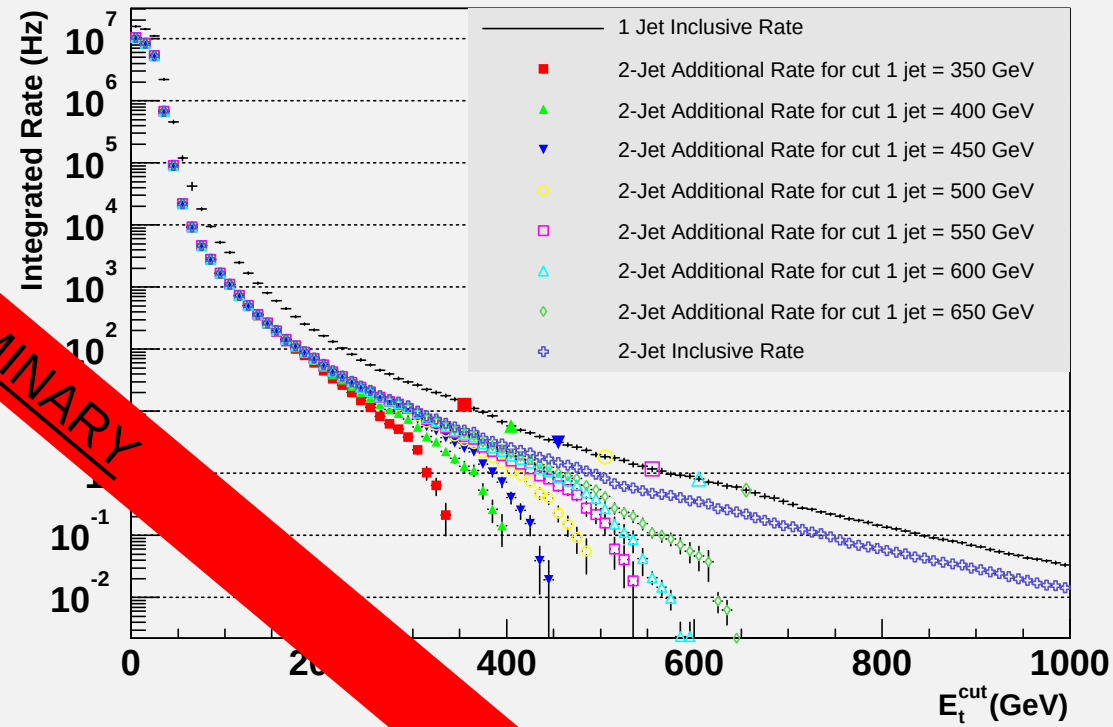
IsoRate (Z'700->2j)for the 1 and 2-jet trigger



Single and (Additional) Di-jet Rates with eta cut

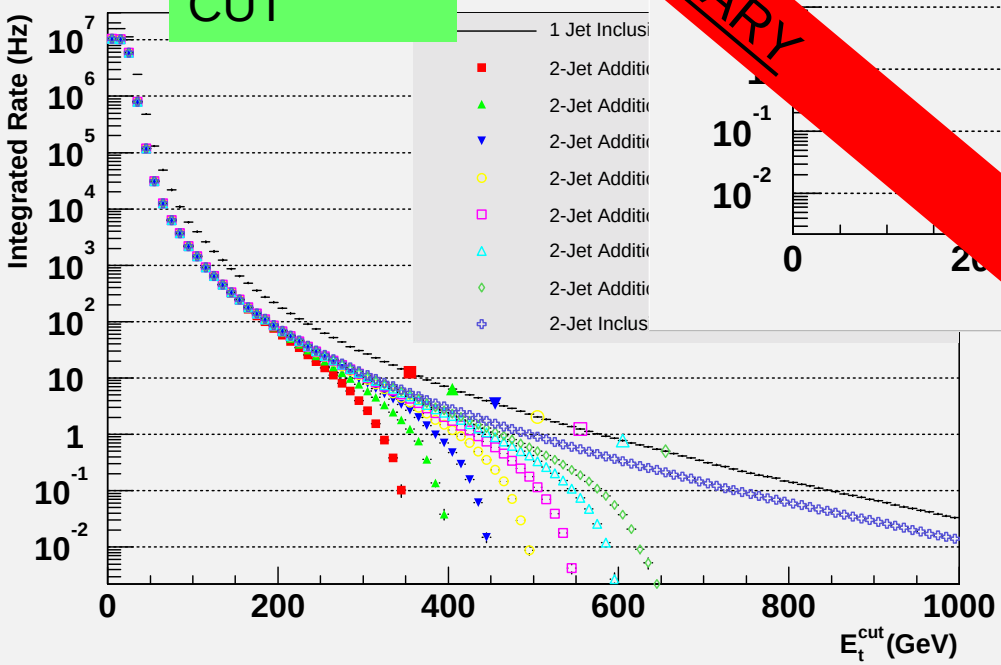
LOW LUMI

ETA JETS < 2



PRELIMINARY

NO ETA CUT



Conclusions

….The following results have been presented (no time for conclusion):

- Trigger jet rates (consistent with old production)

- MET+1Jet rates.
- IsoRate prescaled contour plots